

New Species from the Bishop Museum Collection of Samoan Parasitic Hymenoptera

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CRYPTINAE

Hemiteles samoanus n. sp.

Female.—4 mm. long, shining; head and thorax black; abdomen golden yellow, legs, antennae and mandibles also; generally smooth but where the integument is sculptured, as on the face, median disc of mesoscutum, metathorax and abdominal tergites, the sculpture is extremely fine; clothed with short, white hairs, especially on face, metathorax and mesopleura. Head transverse, wider than thorax, width twice the length (as seen from above); eyes large, convex; ocelli lying between on the vertex, arranged in the form of an equilateral triangle, the lateral members removed from the eye margin about two diameters; fronto-vertex as wide as long, flat on top, declivous in front; face quadrate, very finely punctate, hairy, and with the antennae attached at the top or between the eyes at about their middle, the sockets rimmed in front and with a depression between; clypeus not separated but line of separation marked by a short sulcus at the sides; antennae 22-segmented, long and slender, nearly as long as body, not widely separated at base, scape short, stout, apically tangentially excised behind and hollowed, the 2nd segment or pedicel sunk in the cup, flagellum filamentous, segments 3-5 subequal, more than 8 times as long as wide, following segments progressively shorter, last segment longer, pointed and flattened; mandibles short, stout, flat, narrowing apically and bidentate, base exceeding in length the malar space; genae and postgenae moderately wide and convex, occipital foramen margined; maxillary palpi long, 5-jointed; labial palpi short, 4-jointed. Thorax long, moderately wide and deep; prothorax visible from above, extended in front in a short neck; mesoscutum as wide as long, convex, margins carinate and perfectly rounded, notauli present, extending from anterior margin four-fifths of the length, converging medially but not meeting; scutellum round to triangular, convex, separated from the scutum by a deep, faintly costate groove, the lateral margins of which are marked by sharp ridges extending on to the scutum; postscutellum transverse, depressed in front, elevated behind, posterior ridge joined to scutellum by two short longitudinal carinae on either side of and not far from median line; propodeum convex above, declivous behind, finely reticulately sculptured and completely areolated; areola closed; mesothoracic pleura with a deep pit medially; metathoracic spiracle almost circular. Abdomen elongate, subpetiolate, fusiform; greatest width at 3rd segment, 1st segment the longest, 2nd as long as apically wide, following segments transverse, 1st segment bent and expanded apically, the spiracles just beyond the middle, slightly raised in the lateral groove; ovipositor exerted, about one-third abdominal length. Wings hyaline, stigma triangular, moderately wide, areolet incomplete. Legs moderately long and slender.

Described from one female (type)* collected in February, 1930, on the Fagasa Trail, Tutuila, Samoan Islands, by D. T. Fullaway, and one male (allotype) collected April 16th, 1924, at Pago Pago, Tutuila, Samoan Islands, by E. H. Bryan, Jr. There are seven

* The types of all species are in the Bishop Museum, Honolulu.

other specimens in the collection (paratypes) collected as follows: two collected at Pago Pago, April 12th and 16th, 1924, by E. H. Bryan, Jr., one collected at Amouli, Tutuila, September 7th, 1923, by O. H. Swezey, three collected at Salailua, Savaii, May 17th and 23rd, 1924, by E. H. Bryan, Jr., and one collected at Tuaeufu, Upolu, September 16th, 1923, by Swezey and Wilder.

PIMPLINAE

Therion savaiiensis n. sp.

Male.—10 mm. long; dark red brown; face, continuing on cheeks and narrowly on orbits half the length of temples, a small macula at upper orbits, mandibles except the teeth, fore half of scape, fore and middle coxae and trochanters yellow; frons, vertex and back of head, teeth of mandibles, apical half of hind tibiae and first tarsal segment except apex black or fuscous; fore and middle femora, tibiae and tarsi except two apical segments, apex of first tarsal segment of hind legs and 2nd to 4th segments fulvous; antennae fuscous only at base; shining, covered with short silvery hair, longer on propodeon; on hind tibiae and tarsi very dense. Head transverse, rather thick, eyes large, convex, very slightly marginate on inner margin, ocelli arranged in form of obtuse triangle on vertex, lateral members removed from eye by a little more than one diameter, fronto-vertex wider than long, rather flat, strongly carinate with irregular, short longitudinal rugae, orbits punctate; face longer than wide and narrowing a little apically, irregularly punctate, short striae radiating from base of antennae, which are attached at base, about mid-distance of eye, segments 1 and 2 stout, flagellum mutilated apically, apical segments lost beyond 36th, 1st segment twice as long as second; clypeus not separated from face by a groove but line of separation marked by lateral foveae; labrum distinct; mandibles stout, wide at base, pointed apically, upper tooth longer than lower; maxillary and labial palpi 4-jointed, pale yellow and slender; malar space about one-fourth basal width of mandibles, cheeks and occiput fairly wide. Thorax fairly long and stout, pronotum visible from above only at sides, which are coarsely punctate, mesonotum no longer than wide, convex, with dense, rugged sculpture, mostly very coarsely punctate, transversely striate apically, parapsidal grooves (notauli) shallow and rather indistinct, converging apically but not reaching apical margin; scutellum much smaller, quadrate, flat, coarsely but shallowly sculptured on the disc, separated from the mesoscutum by a deep groove, the sides of which are sharply carinate; postscutellum transverse, deeply sunken on either side of a median longitudinal ridge; propodeum convex, flat above, declivous at sides, produced into a long neck apically, the whole having a coarse, reticulate sculpture; spiracles elongate; mesopleura coarsely reticulated above, below coarsely and shallowly punctate, a bare, smooth area between and next hind margin. Abdomen petiolate, petiole more than ten times as long as apical width and only slightly and very gradually expanded outwardly, the spiracle placed near apex (about twice the width therefrom), second abdominal segment fully as long as first and nearly as slender but compressed laterally, both segments smooth and shining, following segments much shorter and after 4th strongly compressed, the depth greater than length, very finely, almost imperceptibly punctate and hairy, last segment bearing the rather huge claspers below and filamentous cerci-like appendages above. Wings hyaline, with faint brownish suffusion, stigma lanceolate, radial cell narrow (width about a fifth of length), disco-cubital cell long and narrow, without an areolet, inter-cubitus half the length of 2nd abscissa of cubitus, nervulus slightly postfurcal, nervellus broken above the middle. Fore and middle legs moderately long and slender; hind legs very long, the coxae quite stout, femora and tibiae expanded apically, 1st tarsal joint twice length of second.

Described from one specimen (type) collected May 3rd, 1924, at Safune, Savaii, Samoan Islands, in the rain forest 2000-4000 feet elevation, by E. H. Bryan, Jr. Bears superficial resemblances to *Agrypon omabensis* Cheesman described from the New Hebrides but differing in several important details.

OPHIONINAE

Porizon savaiiensis n. sp.

Female.—Length 3 mm., shining black; the head and thorax polished; antennae fuscous for the most part, the first three joints however lack infuscation in front and are pale brown; so also are the legs, the mandibles and the trophi; wings hyaline with brownish suffusion. Head transverse but bulging out in front, that is, the plane of the fronto-vertex, which is as wide as long and has the ocelli placed in the form of a small obtuse triangle at the summit (lateral members twice their diameter removed from eye margin, once and a half from each other), lies at an angle with that of the face, which is not quite as wide as long, is slightly convex, and has the attachment of the antennae at its base and on the line where the two planes meet, and has the curved front margined clypeus at its apex distinctly separated from basal part of face by a line marking a depression; eyes fairly large, convex, inner margins parallel; malar space as wide as base of mandibles, which are slender and closely appressed to and partially overhung by the prominent clypeus; genae rather narrow but postgenae considerably widened; occiput declivous and convex; maxillary palpi filamentous and greatly lengthened, reaching apical margin of mesopleura; antennae 19-segmented, long, slender, flagellum filamentous, basal two joints a little stouter, the sockets appearing slightly raised on account of a deep sulcus between and behind them. Thorax not quite as wide as head, fairly long and quite deep through the mesothorax, pronotum scarcely visible from above, declivous in front and at the sides, the prosternum extended forward in a short neck; mesoscutum convex, as wide as long but considerably narrowed in front, notauli absent but there is a faint median longitudinal line traversing the disc; scutellum rather tuberculate, separated from scutum by a deep fovea whose sides are acutely margined; mesopleura convex, with a deep fovea in upper hind corner and a deep transverse groove or impression slightly below middle, separating the upper from the lower half, which has the posterior margin costate; postscutellum a transverse ridge behind a deep furrow; propodeum globoid, separated from the metanotum by a sulcus or transverse depression, areolation present only behind and at the sides. Abdomen as long as head and thorax combined, pedicellate, compressed beyond third segment, 1st segment longest, slender, widening slightly apically, width about one-sixth its length, depressed, the spiracles placed just beyond middle on the sides in a groove marked by longitudinal carinae, 2nd and 3rd segments longer than wide but not twice as long as width at apex, following segments shorter; ovipositor exerted, not as long as abdomen, valves bearing spinous hairs; wings moderately long and wide, stigma rather lanceolate, not greatly widened, radial cell wide, nearly half the length, third discoidal cell widened apically, disco-cubital vein apically coalescing with radius to the exclusion of areolet and transverse cubital veins, nervulus interstitial, second discoidal vein less than half the length of third, transverse cubital in hind wing about one-half cubital, nervellus broken above the middle; legs moderately stout and long, claws without teeth.

Described from one specimen (type) collected May 9th, 1929, at Safune, Savaii, Samoan Islands, in the rain forest 2000-4000 ft. elevation, by E. H. Bryan, Jr.

Campoplex (Diocetes) tutuilensis n. sp.

Female.—5 mm. long; head and thorax black; abdomen for the most part yellow to fuscous brown with black or blackish markings, the pedicel almost entirely black (slightly brownish apically); legs mostly yellowish brown; front and mid-coxae and trochanters lemon yellow; two basal joints of antennae above and below; mandibles except teeth and tegulae also yellow; integument of head and thorax very finely granulate and finely and closely punctuate, mat; of abdomen almost smooth with a fine hairy clothing; only the stalk of the pedicel and the shoulder of the mesopleura smooth and shining. Head transverse, eyes large, elongate, slightly emarginate on inner margin; ocelli brown, arranged in form of an equilateral triangle on the vertex, lateral members less than their short diameter removed from eye margin; fronto-vertex almost quadrate, flat, face a little longer than wide and almost flat; antennae attached at upper margin of face, about opposite middle of eye, 33-segmented, as long as the body, slender, sockets circular, margined, the margin in front rimmed, first two joints short, stout, flagellum filamentous, pubescent, 1st joint of flagellum about six times as long as thick, following joints progressively shorter; clypeus not separated from face except by a short shallow groove on the sides; mandibles short, stout, slightly curved, bidentate on outer face; maxillary and labial palpi 4-jointed, slender, latter more than twice as long as former; malar space half as wide as base of mandibles but widening considerably behind the eyes, the occiput directly below the vertex almost vertical; occiput and face covered with stiff silvery appressed hairs. Pronotum hardly visible from above; mesonotum convex, margined laterally but without furrows; meso-scutellum triangular in shape, slightly convex, separated from the scutellum by wide, shallow groove which is margined at sides; postscutellum a transverse, slightly convex, central disc extended laterally by thin, vertical, sharply carinate wings; propodeum as large as mesonotum, convex, declivous behind and extended slightly in a neck which reaches about the width of the petiole beyond the insertion of the hind coxae, areolated, the areola closed in front; pleura almost vertical and slightly convex. Abdomen short, no longer than head and thorax combined, compressed apically, pedicel slender at base and flattened above, below and at sides, expanded apically, the knob as well as 2nd and 3rd tergites rather flat, 1st segment longest, 2nd, 3rd and 4th subequal, shorter than 1st, 6th still shorter, 7th very short; ovipositor exserted, as long as the abdomen, the valves only about half as long. Wings hyaline, stigma lanceolate, radial cell as well, latter about a fourth as wide as long, discocubital cell extended apically in a neck, without an areolet, intercubitus a little longer than the second abscissa of cubitus, nervulus slightly postfurcal, nervellus curved but not broken. Legs stout.

Described from a specimen (type) collected in March, 1930, on the Reservoir Trail behind Pago Pago, Tutuila, American Samoa, by D. T. Fullaway. A second specimen collected on the Afono Trail, on same island, has head missing.

MICROGASTERINAE

Apanteles samoanus n. sp.

Female.—3 mm. long; black, antennae concolorous; the front legs (except coxae), middle tibiae and tarsi, hind tibiae (except apical third) and tarsi, and the palpi red to pale testaceous. Head: face finely punctate (degree 1); vertex and occiput finely rugose. Thorax: mesoscutum with close but separated punctuation (degrees 3 and 4), disc of scutellum smooth and shining, only a few scattered punctures along the margins; propodeum rugose but not dull, with fully formed and strong carinae and costulae, the areola V-shaped apically and

with smooth and shining disc. Wings: 1st abscissa of radial and transverse cubital not differentiated in their well-rounded course except that the latter is considerably thicker, the apical portion of the 1st abscissa of the cubital plus the pigmented portion of the second abscissa equalling the recurrent nervure in length, approximately twice the length of the transverse cubital and more than twice the length of the upper portion of the basal vein, the first abscissa of the radial longer than the stigma is wide, stigma shorter than the metacarp. Legs: hind coxae on the outer faces smooth and shining, median area virtually impunctate, marginally with fine punctures (degree 1), the longer hind tibial spur more than one-third, nearly a half the length of basal tarsal joint, shorter one about one-fourth length. Abdomen: 1st tergite a little longer than wide with parallel sides, slightly tumescent medially, in basal half smooth and shining, apical half coarsely sculptured with many scattered large (degree 4) and shallow punctures and coarse striae, 2nd tergite transverse, smooth and shining as are following segments; ovipositor sheath as long as joints 1 and 2 of hind tarsi combined or possibly a little longer, and flattened. Male has apical half of 1st tergite expanded a little laterally and the sides are therefore not straight.

Described from three females and three males (type, allotype and paratypes) collected as follows: type collected at Pago Pago, Tutuila, Samoan Islands, on February 26th, 1930, allotype at Fagasa, same island, on March 8th, 1930, two of the paratypes same place in March 1930, one on the 8th, another of the paratypes on the Aua-Afono Trail, another on the Reservoir Trail, same island and in the same month, all by D. T. Fullaway.

CHELONINAE

Phanerotoma samoana n. sp.

Female.—3.75 mm. long; yellowish to reddish brown, the legs and palpi paler; eyes, tips of mandibles, ocellar triangle and claws black; head and thorax for the most part finely sculptured and rather dull, hardly shining; abdomen dorsally longitudinally striate and dull, not at all shining. Head a little wider than the thorax and subquadrate (width from above about one and a half times length), eyes large, broad oval, convex, naked; antennae attached in front between the eyes, at the junction of the fronto-vertex and face, whose respective planes lie at right angles, the sockets well separated, more than 16-segmented (ends broken off), scape and pedicel stout, flagellum filamentous, not as long as body, top of head rather flat; occiput rather wide behind the eyes and margined, foramen in a deeply eroded cavity; ocelli medially placed at hind margin of eyes in a rather small triangle, the lateral members more than three times as far from eye margin as from each other; face rather flat, hairy in upper lateral angles, an inconspicuous carina and frontal prominence medially in front of antennae; clypeus incompletely separated by lateral furrows with a deep pit at upper end, anterior margin slightly arcuate; mandibles stout, pointed, bidentate, base wider than malar space, which has a fine carina at upper end; genae and post-genae rather wide; maxillary palpi 5-jointed, long; labial palpi 4-jointed, shorter. Pronotum not visible from above; mesoscutum as long as wide, convex, without noticeable notauli; scutellum triangular, separated from mesoscutum by a costate groove; postscutellum with the disc smooth and shining, the groove costate, metanotal phragma likewise; propodeum short, convex, declivous behind a transverse arcuate carina; mesopleura rather smooth, convex, with indistinct costate furrow on hind margin. Abdomen flat corbicular, twice divided, the three segments of about equal length, a lateral longitudinal carina on either side of 1st segment extending from the base where it is very strongly marked to and a little beyond the middle; ovipositor short

and protruding its whole length at apex. Legs moderately stout except hind ones which are stouter and longer, the tibiae particularly being considerably expanded apically. Wings hyaline, stigma and veins except outwardly fuscous brown and rather thick, 2nd cubital cell pentagonal, longer than wide but less than half as wide at base as at apex.

Described from one specimen collected in February, 1930, on the Fagasa Trail on Tutuila, Samoan Islands, by D. T. Fullaway (type).

SPATHIINAE

Spathius tutuilensis n. sp.

Female and male.—4 mm. long; ochreous brown, shining, the head infusate above; legs and antennae stramineous; wings densely clothed and beclouded with whitish hairs, chalky or milky white in appearance. Head a little wider than the thorax, wider than long, extended somewhat behind the eyes, which are short oval, convex, bare; ocelli arranged in a small equilateral triangle on summit of vertex, distance between members considerably less than to margin of eye, fronto-vertex convex above, declivous in front of ocelli, smoothly rounded on to occiput, which has margin strongly carinate, all smooth, polished and shining; face lying in vertical plane, wider than long, finely aciculate and sparsely punctate; clypeus small, distinctly separated, anterior margin carinate and slightly curved; mandibles below oral orifice, short, stout, bidentate, pointed apically, basal width hardly as great as the length of the malar space; antennae attached at middle distance of eyes behind a frontal prominence, the sockets oval, fairly far and wide apart, rather close to eye margin, with a deep groove or depression between, longer than the body, consisting of 34 segments, which get gradually shorter outwardly although there is not much difference in the lengths of the first four segments, segments 1 and 2 are stout, the flagellum very slender; maxillary palpi 5-segmented, long, slender; labial palpi 3-segmented, short, a little thicker; genae and post-genae quite wide; the labrum, face and vertex sparsely hairy. Prothorax prominent with the anterior and posterior margins strongly carinate, the saddle rather coarsely reticulately sculptured; mesoscutum longer than wide, convex, its surface shagreened, parapsidal furrows deep; scutellum triangular with a wide and deep costate furrow at base, surface smooth and shining; metanotum a transverse furrow with posterior margin strongly carinate; propodeum as long as mesoscutum, convex, rugulose, areolated, the areola triangular in outline with apex at anterior margin; spiracles circular; mesopleura smooth and shining with a conspicuous pit in center of disc. Abdomen elongate oval, petiolate, the petiole nearly half its length, rather slender, somewhat expanded apically and slightly convex upward, rugulose, spiracles at about the middle slightly raised, abdominal segments beyond petiole smooth, polished, transverse, the 2nd however nearly as long as wide; ovipositor nearly as long as the abdomen exclusive of petiole. Legs fairly stout, spinulose, hind coxae shagreened above. Wings rather long and narrow, the stigma large, lanceolate, recurrent nervure received at base of 2nd cubital cell, which is long and narrow, only about half as wide at base as it is apically, nervulus slightly postfurcal, radius reaching apical margin of wing.

Described from three female and three male specimens collected on Tutuila, Samoan Islands, by D. T. Fullaway, as follows: 2 females and one male from Amouli, captured in February, 1930 (type, allotype and paratype); 1 female from Vatia Trail, captured in February 1930; one male from Fagasa, captured on March 8th, 1930; one male from Leone-Aule Trail, captured on February 12th,

1930 (paratypes). An odd female collected by Swezey & Wilder 9/7/23 on the Leone Road off a taro plant is the same species.

DORYCTINAE

Doryctes samoanus n. sp.

Male.—4 mm. long; yellowish brown; eyes, ocelli, tips of mandibles black; antennae and last tarsal joint fuscous; wings hyaline. Head wider than thorax, quadrate, smooth, polished except on the face, which is very finely punctate and hairy extended backward considerably behind the eyes; occiput completely margined; ocelli arranged in an obtuse triangle anteriorly on the vertex, distance between lateral members only about half that to eye margin, declivous in front; eyes fairly large, convex, bare; antennae attached behind the frontal prominence at about half the length of eye and opposite the emargination of inner border, well separated, 39-segmented, 1st and 2nd segments stout, flagellum filamentous, 3rd and 4th segments about equal in length, which is about six times diameter, succeeding segments gradually shorter outwardly to last, which is flattened and pointed; face below the antennal prominence retracted so that mouth is directly below the eyes; clypeus indistinctly separated; mandibles flaring, below the mouth opening, short, stout, bidentate but under tooth blunt, width of malar space about same as width of base of mandible, the latter extending in the same direction as the former instead of being at right angles to it; the genae and post-genae three-fourths the width of eye; maxillary and labial palpi very slender, the former 5-jointed and quite long, extending to fore-coxae, the latter 4-jointed and less than half that length; labrum quite prominent. Thorax elongate, fairly wide and deep; prothorax extended forward into quite a distinct neck, which dorsally is coarsely reticulately sculptured; mesoscutum moderately convex, smooth and shining, with distinct parapsidal grooves which converge and meet on posterior margin dividing the scutum into three lobes; scutellum keystone-shaped, flat, smooth and shining, separated from the scutum by a short, wide groove medially divided by a carina into two quite large foveae; metathorax a sculptured transverse band half the width of scutellum; propodeum moderately convex, medially divided by a longitudinal carina, the surface smooth and shining though rather coarsely and closely punctate, on posterior margin on either side median carina is a large fovea with carinate four-square margin; mesopleura moderately convex with crenulate anterior and posterior margins. Abdomen elongate and sessile, about as long as head and thorax taken together, 1st and 2nd segments longer than wide, rather flat, the tergum striate, segments 3, 4, 5 and 6 transverse, the tergites convex with a deep groove anteriorly on each segment and generally smooth and shining although sometimes partially striate, 7th segment triangular, pointed posteriorly, rather flat, smooth and shining, all the tergites sparsely hairy. Legs moderately long and slender, the posterior pair with extra large coxae and femora. Wings moderately long and narrow, with very faintly indicated suffusion of color and cloudiness, the stigma lanceolate, light brown, inner lower margin shorter than outer lower margin, radial vein reaching apex, recurrent nervure based on first cubital cell, nervulus postfurcal, 2nd cubital cell nearly three times as long as wide.

Described from three specimens (type and paratypes) collected on Tutuila, Samoan Islands, by D. T. Fullaway: type from Aua-Afono Trail, 1930, paratypes from Leone-Aule Trail, collected February 12th, 1930.

CHALCIDINAE

Chalcis samoana n. sp.

Female.—6 mm. long; shining black with yellow markings on the legs outwardly from apical fourth of femora (but black band or bands on tibiae, some-

times incomplete); tegulae yellow. Head and thorax coarsely umbilicately punctuate (the punctuations increasing in size caudally) to metathorax and propodeum, where the sculpture may be said to be coarsely reticulate; legs and hind segments of abdomen finely punctuate, a silvery pubescence accompanying the punctuation, otherwise smooth and polished. Head wider than the thorax, transverse viewed from above, width about three times length; eyes large, oval, smooth, naked, bulging, reaching top of head and to a point on side of head which is removed one-half their width from mandibles; antennae short, cylindrical, attached below middle of eyes, 11-segmented, scrobes united in a deeply eroded, smooth groove which reaches front ocellus, below, a short ridge inward from face between the antennae but the sockets not complete, scape as long as three first flagellar joints, which are subequal and about one and a half times as long as wide, following segments progressively shorter to the last, which is about as long as wide, penultimate wider than long; fronto-vertex slightly convex, face almost flat, clypeus transversely boomerang-shaped, the anterior ledge sunk in the depression of the oral cavity; mandibles stout, more than twice as long as wide at base, acute apically, malar space longer than width of mandibles at base, genae fairly wide, narrowing to a point above middle of eye; occiput somewhat convex on sides but eroded in middle; ocelli in form of obtuse triangle, the lateral members less than one diameter from eye margin or front member. Thorax longer than wide, a little wider than deep; pronotum transverse, convex above and at the sides, declivous in front; mesoscutum transverse, width twice length, parapsidal grooves distinct, converging posteriorly but quite far apart at posterior margin; scutellum scutate, the disc slightly convex, posteriorly margined and overhanging shelf-like; the axillae triangular, apices not nearly meeting, however; metanotum transverse, declivous; propodeum convex; mesepisterna divided into three fields by a vertical and a horizontal carina—the upper field smooth and polished, with a large depression on lower margin, anterior field with the upper corner smooth and polished and a large pit next anterior margin, lower portion closely pitted, posterior field smooth and polished in the upper portion and transversely costate. Abdomen as long as the thorax, short ovate, sessile, apically pointed, convex above, flattened on the sides, which are sheath-like, enclosing the ventrites, the last of which has four large pits on its surface; 1st segment occupying nearly half the abdomen, following segments transverse and progressively shorter to the last, which is rather conical; ovipositor slightly exerted. Legs rather stout, especially hind pair, of which the coxae are elongate (three times as long as broad) and the femora expanded lens-shaped, with a row of denticles on the under-outer margin next to the tibial groove; tibiae slender and also grooved on upper face. Wings hyaline, clothed on disc with short, fine hairs; elongate, more than twice as long as wide at widest part, roughly triangular in shape, submarginal vein longer than the marginal, postmarginal short, only one-third length of marginal, stigmal vein very short, rather wide, extended outward at an angle to margin and with a tooth on upper margin.

Male similar in most respects, the face heavily clothed with silvery hairs, the hairy clothing extending up on sides of fronto-vertex and genae. Resembles *C. obscurata* closely.

Described from three female and two male specimens, as follows: 1 female (type) collected 9/16/23 at Tuaeifu, Upolu, Samoan Islands, by Swezey and Wilder; 1 male (allotype) collected V-16-24, at Safune, Savaii, Samoan Islands, by E. H. Bryan, Jr.; 1 female collected in February, 1930, at Amouli, Tutuila, Samoan Islands, by D. T. Fullaway; 1 female collected February 12th, 1930, on Leone-Aule Trail, Tutuila, Samoan Islands by D. T. Fullaway; 1 male collected November 23rd, 1924, at Malololelei, Upolu,

Samoan Islands, 2,000 ft., by P. A. Buxton and G. H. Hopkins (paratypes).

***Stomatoceras samoana* n. sp.**

Female.—3.5 mm. long; shining black, the abdomen for the most part polished; legs and antennae, the tegulae, abdomen beneath including ovipositor and its valves, brown or brownish; head and thorax (pronotum, mesoscutum, scutellum and axillae) rather coarsely and closely punctuate; propodeum areolate on the disc, coarsely sculptured on lateral wings, mesepisterna either smooth or striate, one sclerite foveolate, abdomen smooth to 6th segment, which is finely punctuate, 8th segment more coarsely punctuate; hind coxae and femora finely punctuate also; a silvery pubescence accompanies the punctuation. Head wider than the thorax, transverse seen from above, width about three times length; eyes fairly large, short oval, convex, naked, reaching to top of head and to a point on side of head which is about one-half their length removed from base of mandibles; antennae fairly long, slender, cylindrical, attached immediately above mouth opening, 13-segmented, scrobes united in a deeply eroded, smooth groove, which reaches front ocellus; below, a short ridge extends inward from junction of socket rims and between the antennal bases but the socket rim is not complete; scape reaches nearly to top of head and is as long as five following segments, which are about twice as long as thick with exception of short 3rd segment, following segments still shorter but all longer than thick; fronto-vertex slightly convex and margined along inner border of eye; face convex; mandibles moderately stout, more than twice as long as wide at base, acute apically; malar space about four times basal width of mandibles; genae wide below but narrowing above middle of eye; occiput convex but eroded in middle; ocelli in form of obtuse triangle, lateral members close to eye margin and less than two diameters from front member. Thorax longer than wide, not much wider than deep; pronotum transverse, convex above and at sides, declivous in front; mesoscutum considerably wider than long, parapsidal grooves distinct, converging posteriorly but quite far apart at posterior margin; scutellum scutate, rounded behind, the disc convex, posteriorly margined and an overhanging ledge or shelf; the axillae triangular, inner angles nearly meeting; metanotum transverse, declivous; propodeum convex, lunulate in shape; mesepisterna sculptured with striae and foveae. Abdomen as long as head and thorax, suboval but apically extended and pointed, convex above, compressed laterally, 1st segment occupying nearly half the abdomen, following segments 2-5 transverse, very narrow, 6 and 7 wider; ovipositor stout, exerted, extending a little beyond tip of abdomen. Legs rather stout, especially hinder pair, of which coxae and femora are quite stout, the latter flattened, lenticular, and with a finely denticulate, wide, flat, tooth-like projection on the under and outer surface near apex, tibiae slender and grooved on upper surface. Wings hyaline, with brownish suffusion below marginal vein, which is about one-third length of submarginal and ends at wing middle, postmarginal and stigmal very short. Male has antennae which are black, attached considerably above oral cavity, at about lower level of eyes, scape only half length of the head and no longer than 1st flagellar segment.

Described from 5 females and 3 males as follows: one female (type) collected 2/20/26 on Tau, Manua Group, Samoan Islands, by A. F. Judd; one male (allotype) collected in March, 1930, on the Reservoir-Fagatoga Tr., Tutuila, by D. T. Fullaway; one female collected in February, 1930, on the Fagasa Trail, Tutuila, by D. T. Fullaway; one female collected in February, 1930, on Aunu'u Island off Tutuila, by D. T. Fullaway; one female collected in February,

1930, at Amouli, Tutuila, by D. T. Fullaway; one female collected 9/24/23, at Pago Pago, Tutuila, by Swezey & Wilder; one male collected in March, 1930, on the Reservoir-Fagatoga Trail, Tutuila, by D. T. Fullaway; one male collected 9/16/23, at Tuaeufu, Upolu, on sliding rock, by Swezey & Wilder (paratypes).

Four additional specimens, three from Tutuila and one from Savaii, are referred to this species but are in such poor condition they could not be included in the type material.

EUCHARIDINAE

Chalcura samoana n. sp.

Female.—2 mm. long; head in front view subtriangular, somewhat wider than long, in dorsal view one and one-third times width of the thorax; antennae 12-segmented, scape one-fifth the entire length and reaching top of head, inserted in the middle of the head at about lower level of eyes, a wide, shallow, longitudinal furrow above, a ligulate, flat elevation below marking the backward extension of the clypeus, the sockets separated by a median carina which bifurcates beneath, the flagellar joints somewhat clavate, becoming progressively shorter outwardly; mandibles with a conspicuous tooth on the inner margin, apices slender, curved, acute; eyes oval, bulging, smooth, chocolate black, one-third the length of the head, their tops reaching top of the head; ocelli on the vertex and almost in line, lateral members more than three diameters removed from eye margin, less than one diameter from middle member; face slightly convex, occiput deeply eroded below, convex on sides, merged in the middle below vertex; malar space one and one-half times length of eyes; clypeal foveae wide and shallow. Thorax one-third the total length, width five-eighths and height three-fourths its own length; mesoscutum trilobed, the lobes convex, parapsidal grooves converging but not meeting on anterior margin of scutellum, fairly wide and deep, costate; scutellum simple, peltate to triangular, almost flat, the disc divided by a deep, wide, transverse costate groove (axillae) whose inner margins are confluent below anterior margin of the scutellum, sometimes with foveae in the middle; mesepisterna and metepisterna fairly smooth, only a few pin punctures discernible; propodeum steeply sloping, with a line down the middle. Legs slender. Wings with submarginal vein a little longer than the marginal, postmarginal about half as long, stigma short and blunt. Abdomen half the total length, petiole slender, subcylindrical, six times as long as wide, gaster somewhat compressed, cymbiform in side view, longer than the petiole, nearly twice as long as wide, flat above and somewhat depressed, keeled below; the ovipositor exerted. Smooth and shining, faintly striate or punctate on front of head and mesopleura, the middle lobe of the mesoscutum somewhat ridged, with the ridges extending across the parapsidal grooves as costae; head and thorax aeneous green, abdomen black, the petiole longitudinally striate with metallic reflections; legs except coxae, antennae and trophi straw yellow to fuscous brown. A fascia of long hairs on anterior margin of the clypeus, a fascia of hairs at lower base and tufts of pubescence on lower apex of the gaster, a few minute hairs on the genitalia, pubescence on the flagellum and legs. Eyes and ocelli chocolate brown black; suffusion of brown on wings especially marked below stigma.

Male differs as follows: antennal segments 3-11 with long apical branch (3rd however short), scape shorter than in female, not as long as 1st flagellar joint, 12th joint extending only a little further than apical branch of 11th; ocelli larger, lateral members less than two diameters from the eye-margin; mandibles with two teeth on inner margin; middle lobe of the mesoscutum, the scutellum and the propodeum coarsely reticulately sculptured, mesopleura lightly so or finely punctate on posterior half; petiole of abdomen about eight

times as long as wide; penis slightly exerted at about middle of ventral margin of gaster, which is securiform or hatchet-shaped.

Described from 2 females and 4 males, as follows: one female (type) collected February 12, 1930, on the Leone-Aule Trail, on Tutuila, Samoan Islands, by D. T. Fullaway; one male (allotype) collected March, 1930, at Leone-Aluau, Tutuila, by D. T. Fullaway; two males (paratypes) collected February-March, 1930, at Leone-Aluau, Tutuila, by D. T. Fullaway; one female (paratype) collected 9/9/23, at Fagasa, Tutuila, by Swezey & Wilder; one male (paratype) collected 4/19/26, at Pago Pago, Tutuila, by E. H. Bryan, Jr.

***Stilbulaspis samoana* n. sp.**

Female.—2.75 mm. long; head in front view subtriangular, somewhat wider than long and wider than the thorax; antennae short, 12-segmented, scape about one-fourth the entire length, not reaching top of head, attached in the middle of the head at about lower level of eyes, a wide, shallow, longitudinal furrow above, a smooth, flat plate below, including clypeus, the anterior margin of which is slightly rounded, clypeal grooves rather shallow, antennal sockets close together but separated by a short ridge, flagellar joints 4 to 9 of antennae somewhat clavate, of about equal length; mandibles with a conspicuous tooth or two teeth on the inner margin, apices slender, curved, acute; eyes oval, bulging, smooth, nearly one-half the length of the head, their tops reaching the top of the head; ocelli on the vertex and almost in line, lateral members about three diameters removed from eye-margin, about one and a half from middle member, face and occiput slightly convex; malar space the length of eye. Thorax about one-half the total length, width of thorax more than half the length, height about three-fourths; pronotum not visible from above, mesoscutum convex, the parapsidal furrows distinct but very shallow, converging but not meeting on posterior margin; scutellum lying behind the axillae and separated from them by a fairly wide and deep groove, which widens considerably in the middle where it extends to anterior margin, not as long as the mesoscutum, triangular, convex above and below and margined at the sides, with apical extension of two thin, curved prongs from a short and narrow base, almost doubling its length; metanotum transverse and coarsely striate or costate; propodeum declivate, scutate, with a line down the middle and lateral margins; mesepisterna and metepisterna rather flat. Legs slender. Wings with the submarginal vein a little longer than the marginal, postmarginal about half as long, stigmal about a third and somewhat thickened, lying at right angle to marginal. Abdomen less than half the total length, petiolate, the petiole subcylindrical, fairly short and thick (length about three times width), gaster cymbiform, more than twice as long as petiole, width more than half length, flat above, bulging at sides, keeled beneath, ovipositor enclosed. Mesothorax coarsely sculptured with transverse ridges, sculpture of scutellum weaker, propodeum and episterna partly sculptured, partly smooth, head and gaster smooth and shining, with some fine punctuation. Black, only the legs and antennae, mandibles, tips of scutellar prongs, and gaster light brown to fuscous; wings hyaline, with a brownish suffusion around stigma.

Male differs as follows: Aeneous green or blue instead of black, antennal segments 3 to 11 with long apical branch (3rd however short), thorax coarsely reticulate, scutellum longer, prongs shorter than in female, petiole of abdomen, which is sometimes more securiform than cymbiform, a little longer and wider (length above five times width).

Described from 2 females and 14 males, as follows: one female (type) collected 6/21/18 on eastern end of Tutuila, Samoan

Islands, at 1070 ft. elevation, by Dr. H. C. Kellers; one male (allotype) collected 7/21/18 on Tutuila at 1200 ft. elevation by Dr. Kellers; one female (paratype) collected 6/30/18 center of Tutuila at 900-1200 ft. by Dr. Kellers; two males (paratypes) collected 4/30/24 at Safune on Savaii, lowlands to 1000 ft. by E. H. Bryan, Jr.; one male (paratype) collected 5/5/24 at Safune, Savaii, lower forest 1000-2000 ft., by E. H. Bryan, Jr.; one male (paratype) collected 9/14/23 at Leulomoega, Upolu, by Swezey & Wilder; two males (paratypes) collected 9/7/23 on Leone Road, Tutuila, by Swezey & Wilder; one male (paratype) collected 9/7/23 at Pago Pago, Tutuila, by Swezey & Wilder; two males (paratypes) collected in April, 1918, on Tutuila, 760-900 ft., by Dr. Kellers; one male (paratype) collected in April, 1918, on Tutuila at 1100-1200 ft. by Dr. Kellers; one male (paratype) collected in February, 1930, on Aunuu Island by D. T. Fullaway; one male (paratype) collected March 8, 1930, at Fagasa, Tutuila, by D. T. Fullaway; one male (paratype) collected 2/20/26 on Tau, Manua, by A. F. Judd.